

***Experience Rating:
Take Your Medicine or
Find a New Prescription?***

**International Symposium on the Challenges of Workplace
Injury Prevention through Financial Incentives**

November 28, 2012

Les Boden, Boston University School of Public Health

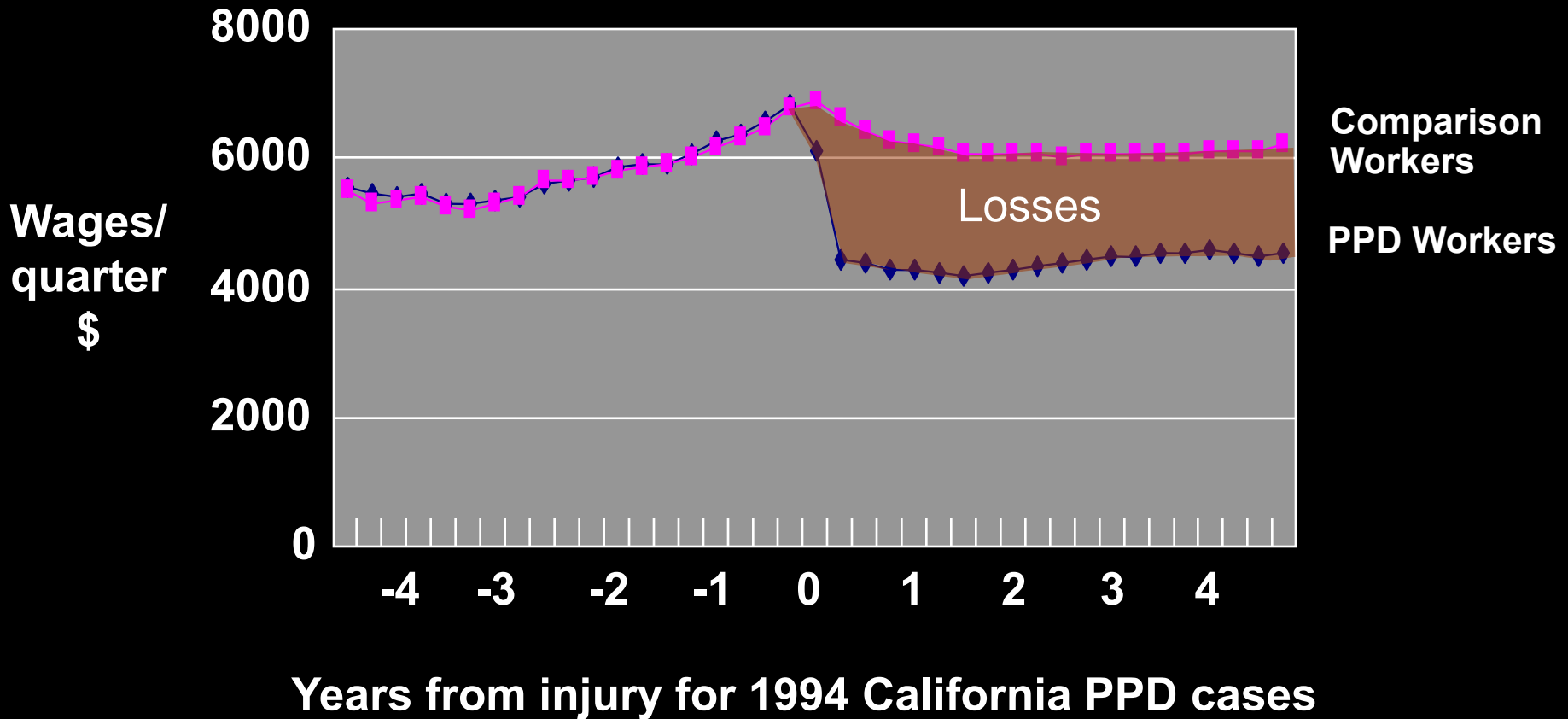
***Experience Rating:
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Overview

- **Positive and negative effects of experience rating**
- **Describe alternative incentive schemes**
- **Possible advantages of alternatives**
- **Do we know their likely impact?**
- **Where might we go from here?**

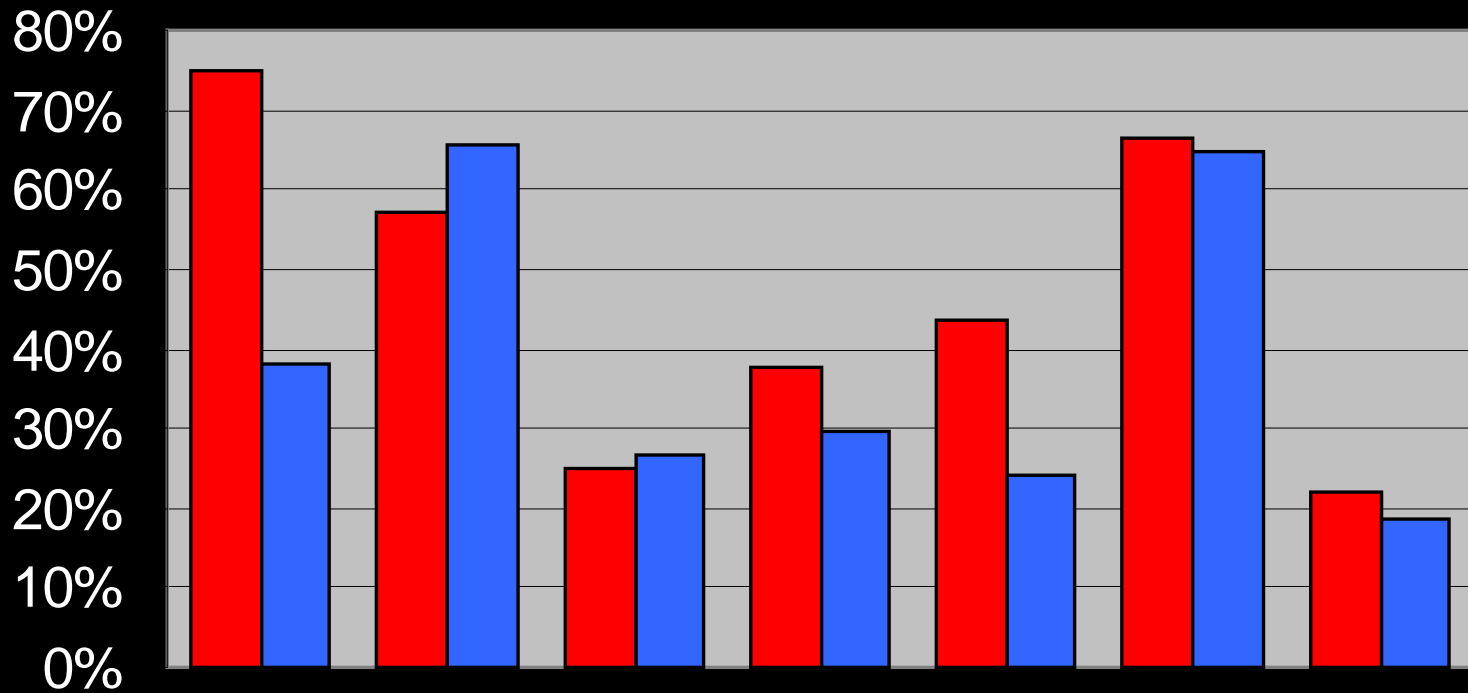
PPD Workers' Earnings Drop After Injury & Losses Continue for Many Years



Reville et al. 2001

Limitations on Family and Social Roles from Workplace Back Injuries, Florida

Percent describing limiter



Household chores
Vigorous leisure
Outdoor chores
Parental role
Sedentary leisure
Sex
Activities/daily life

■ Women
■ Men

Possible Beneficial Effects of Experience Rating

- **Employers may take additional safety precautions**
- **Employers may provide better return to work accommodations**

Potential Negative Effects of Experience Rating

- **Discrimination against “injury prone” or injured workers** (Harcourt, Lam, & Harcourt 2007)
- **More aggressive employer responses to claims** (Kralj 1994; Hyatt & Kralj 1995; Thomason & Pozzebon 2002)
- **Use of general health insurance and nonwork disability insurance for work-related injuries**
- **Use group employee financial incentives to discourage claim filing**
- **Contracting out of dangerous work**
- **Mistrust and stigmatization of injured workers**

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This is not a pipe



Ceci n'est pas une pipe.

Incentives: Using Bonuses or Penalties

- **Experience rating**
- **Practice-based incentives based on**
 - **Specific practices (for example, health & safety committees)**
 - **OSH Management Systems**
- **Incentives based on safety climate (or related leading indicators)**
- **Regulatory standards, inspections, and penalties**

Incentives: Reducing the Cost of Better H & S

- **Tax deductions or credits**
- **Premium credits for safety or RTW programs**
- **Guidelines and related information provision**
- **Free or subsidized consultation**

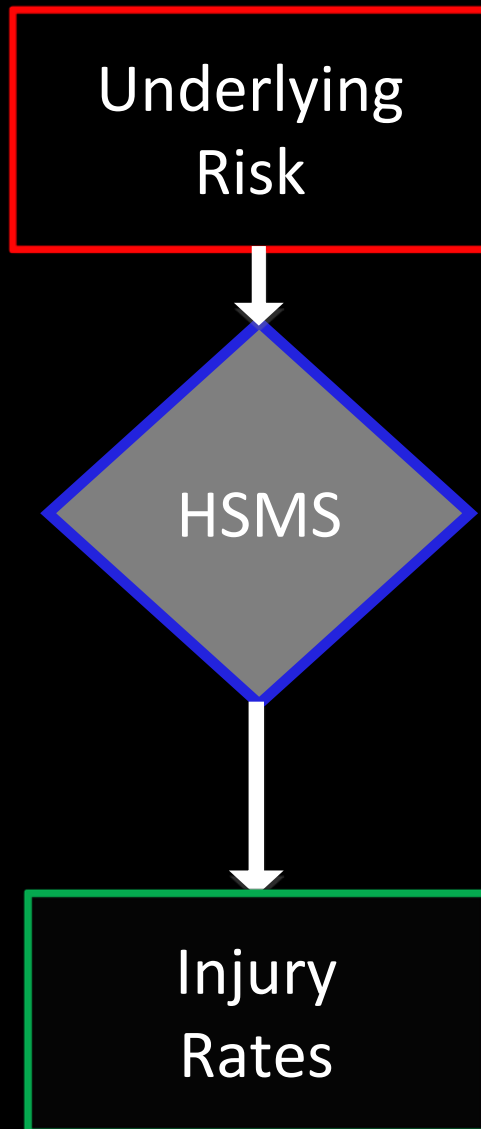
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Some Potential Policy Choices

- **Experience rating – as is**
- **Experience rating with effective controls on its negative effects**
- **Eliminate experience rating**
 - **Simply maintain other existing incentive systems**
 - **Add incentives that reduce H&S costs**
 - **Add incentives for OSH Management Systems**
 - **Add incentives based on safety climate or other leading indicators**

“Conceptual Model” - H&S Management Systems



OSH Management Systems

- **“A set of interrelated or interacting elements to establish OSH policy and objectives and to achieve those objectives.” (ILO 2001)**
- **An integrated management program oriented toward prevention, using outcomes feedback to improve program effectiveness**
- **Redinger & Levine (1998) define 27 elements**

16 Primary Elements of OSHMS (of 27)

- management commitment and resources
- employee participation
- occupational health and safety policy
- goals and objectives
- performance measures
- system planning and development
- OHSMS manual and procedures
- training system
- hazard control system
- preventive and corrective action system
- procurement and contracting
- communication system
- evaluation system
- continual improvement
- integration
- management review

Redinger & Levine 1998; Robson et al. 2007

Studies Provide Little Effectiveness Evidence for OSH Management Systems

- **Robson et al (2007) examined 13 studies of adequate quality.**
- **7 voluntary, 1 with injury/illness outcomes**
- **6 mandatory, 3 with injury/illness outcomes**
 - **1 HSC study – mixed results** (Lewchuk et al. 1996)
 - **2 Internal Control management system studies (Norway) – 1 negative** (Sasvik & Nytro 1996)
 - 1 weakly positive** (Torp 2000)

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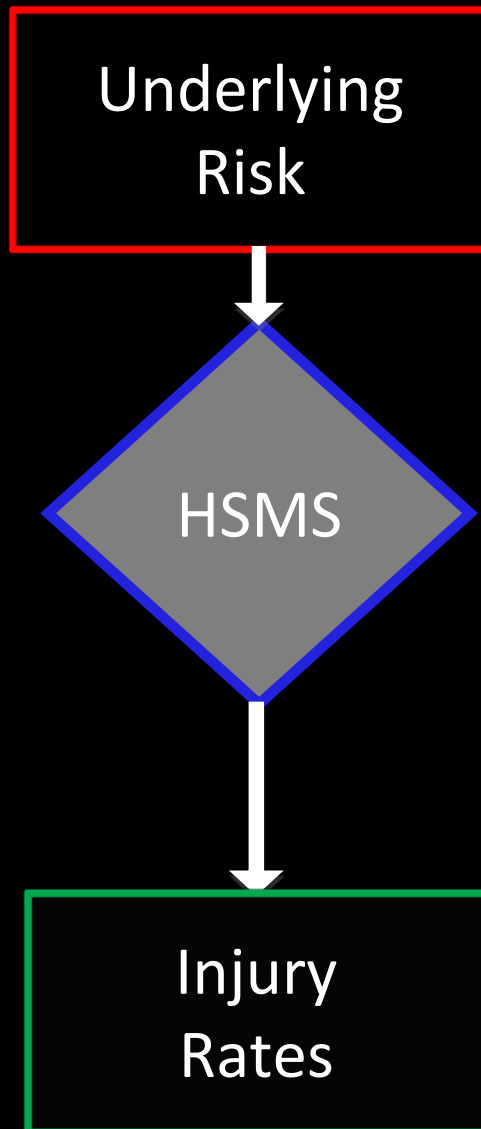
If We Provide Incentives for OSHMS, How do We Decide Who Gets Them?

- **What is the standard?**
- **What is the audit instrument?** (Robson and Bigelow 2010)
- **What is being audited? The program or the paperwork?**
- **Self-audit? Independent audit? Insurer audit?**
- **Who provides information? Is there worker input? If so, how are they chosen? How are they protected from employer influence or retaliation?**

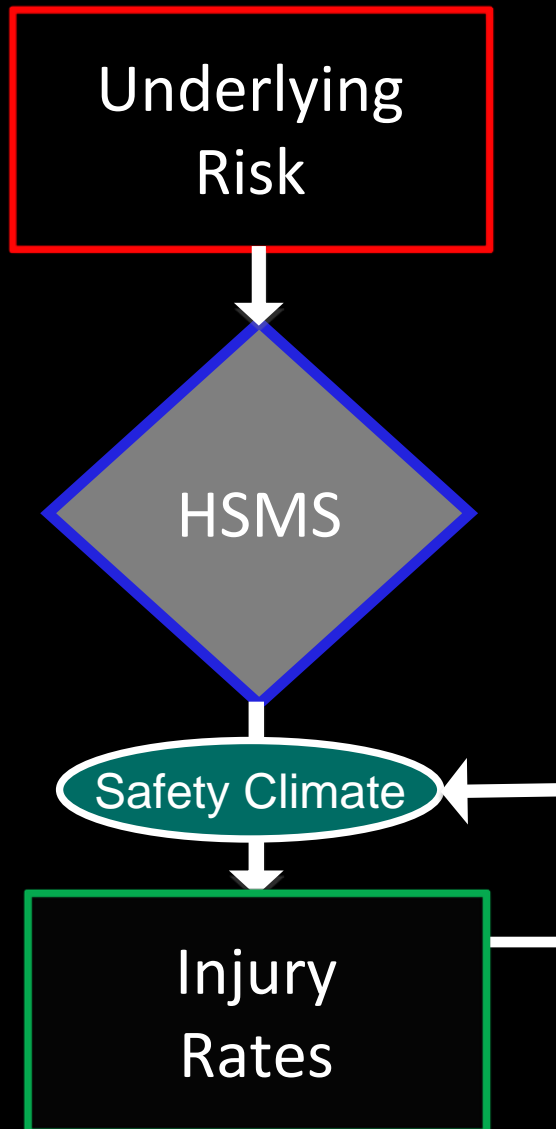
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“Conceptual Model” – Safety Climate



“Conceptual Model” – Safety Climate



Safety Climate or Other Leading Indicators

- **Safety climate (NIOSH): employee perception of the importance of safety within the organization and management commitment to safety**
- **Can safety climate be well-measured?**
 - **What are a measure's validity & reliability**
 - **Measured at the individual or group level?**
 - **Whose perceptions? Workers? Supervisors? Health and safety managers?**

Organizational Performance Metric (OPM)

- **Formal safety audits at regular intervals are a normal part of our business**
- **Everyone at this organization values ongoing safety improvement in this organization**
- **This organization considers safety at least as important as production and quality in the way work is done**
- **Workers and supervisors have the information they need to work safely**

Organizational Performance Metric (OPM) 2

- **Employees are always involved in decisions affecting their health and safety**
- **Those in charge of safety have the authority to make the changes they have identified as necessary**
- **Those who act safely receive positive recognition**
- **Everyone has the tools and/or equipment they need to complete their work safely**

Risk Ratios for Claim Rates by OPM Tier Levels with Tier 4 as Reference



Can we Provide Incentives based on Safety Climate?

- **Can a measure of safety climate predict injury rates?**
 - **The evidence provides moderately strong support** (Clarke, 2006; Payne et al. 2009)
 - **But only 6 prospective studies found**
- **Can it be used in an incentive scheme?**
 - **Practicality of surveying an adequate number of people in many firms**
 - **Responses from health & safety managers or supervisors may be biased or not predictive of injury rates**
 - **Concerns about risk to surveyed workers**

What do we Know About Health & Safety Impacts?

- **Experience rating – you’ve heard from others**
- **OSH management systems – “insufficient evidence”** (Robson et al. 2007)
- **Safety culture – evidence of positive effect, but not clear how to audit for use for incentives**
- **Other options to reduce cost**
 - **Training, consultation, guidelines, subsidies**
 - **Little or no information about impact**

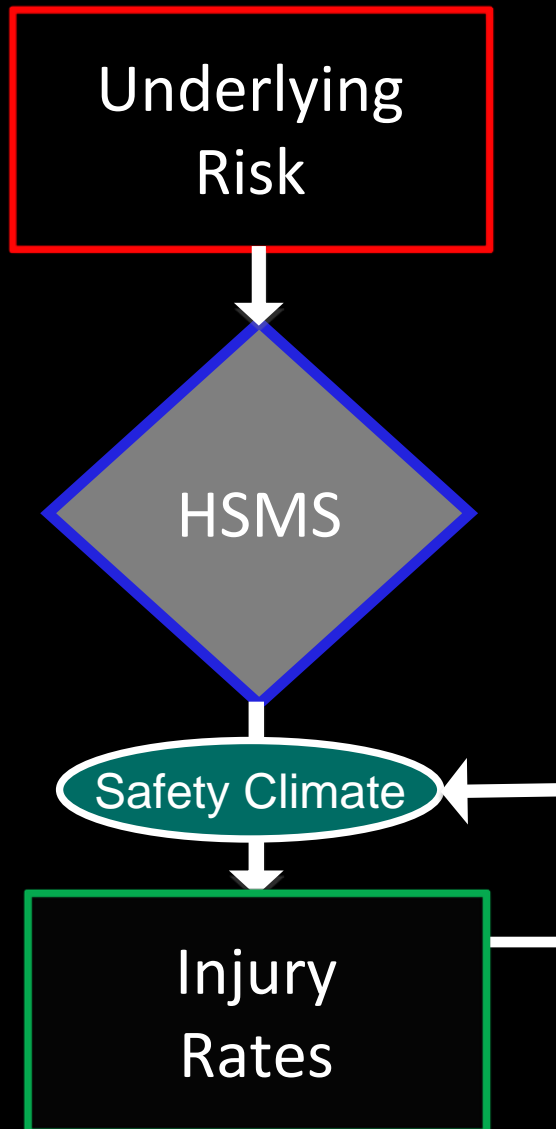
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- **We need to learn from any actions taken**

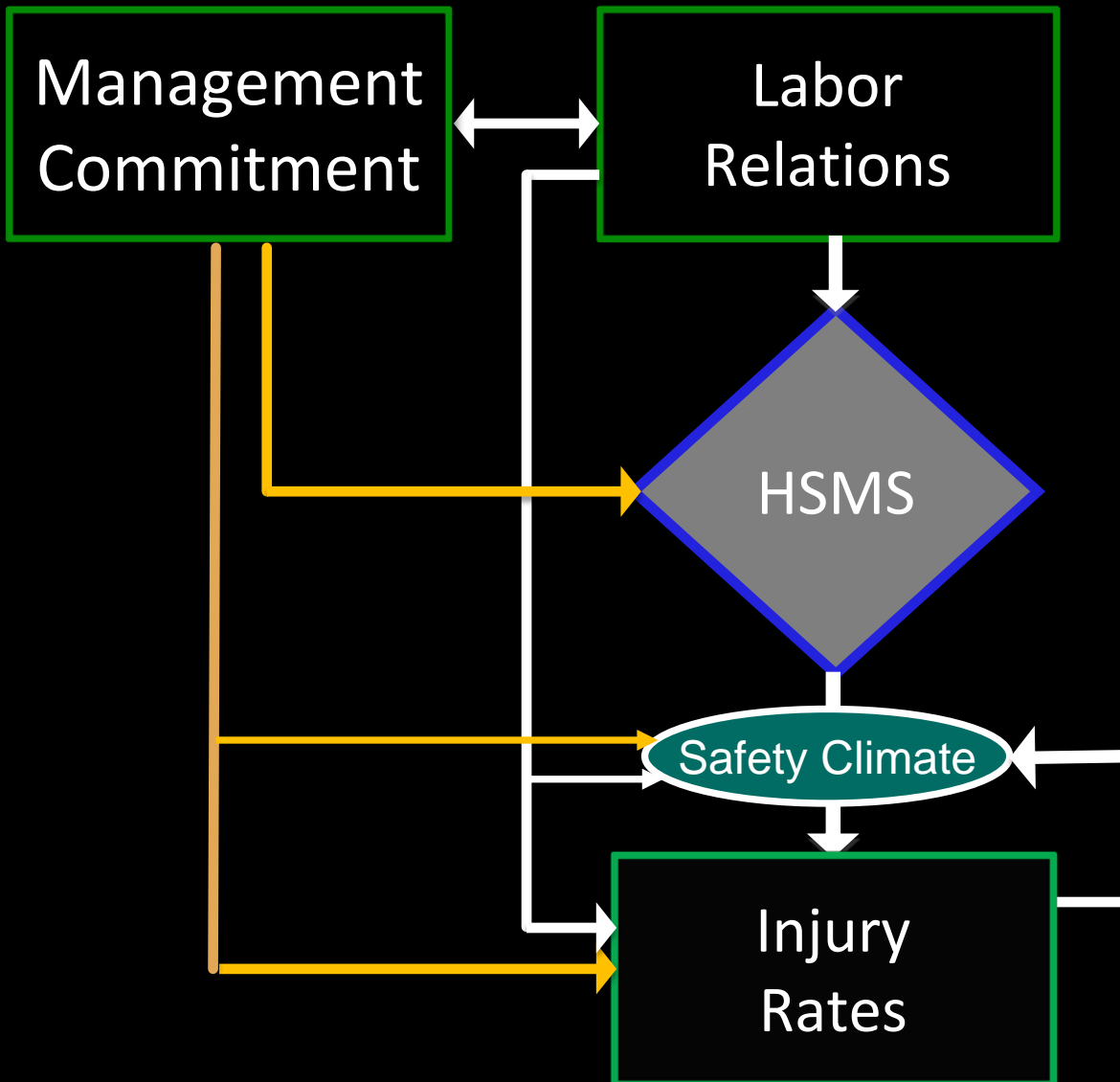
Experience Rating has a Unique Advantage

- **Focuses directly on injury and illness frequency and severity**
- **Other incentives focus on intermediate outcomes (programs, policies, procedures, perceptions, etc.)**
- **Their impact depends on both:**
 - **The impact of the incentive on the intermediate outcomes**
 - **The relationship between intermediate outcomes and injuries and illnesses**

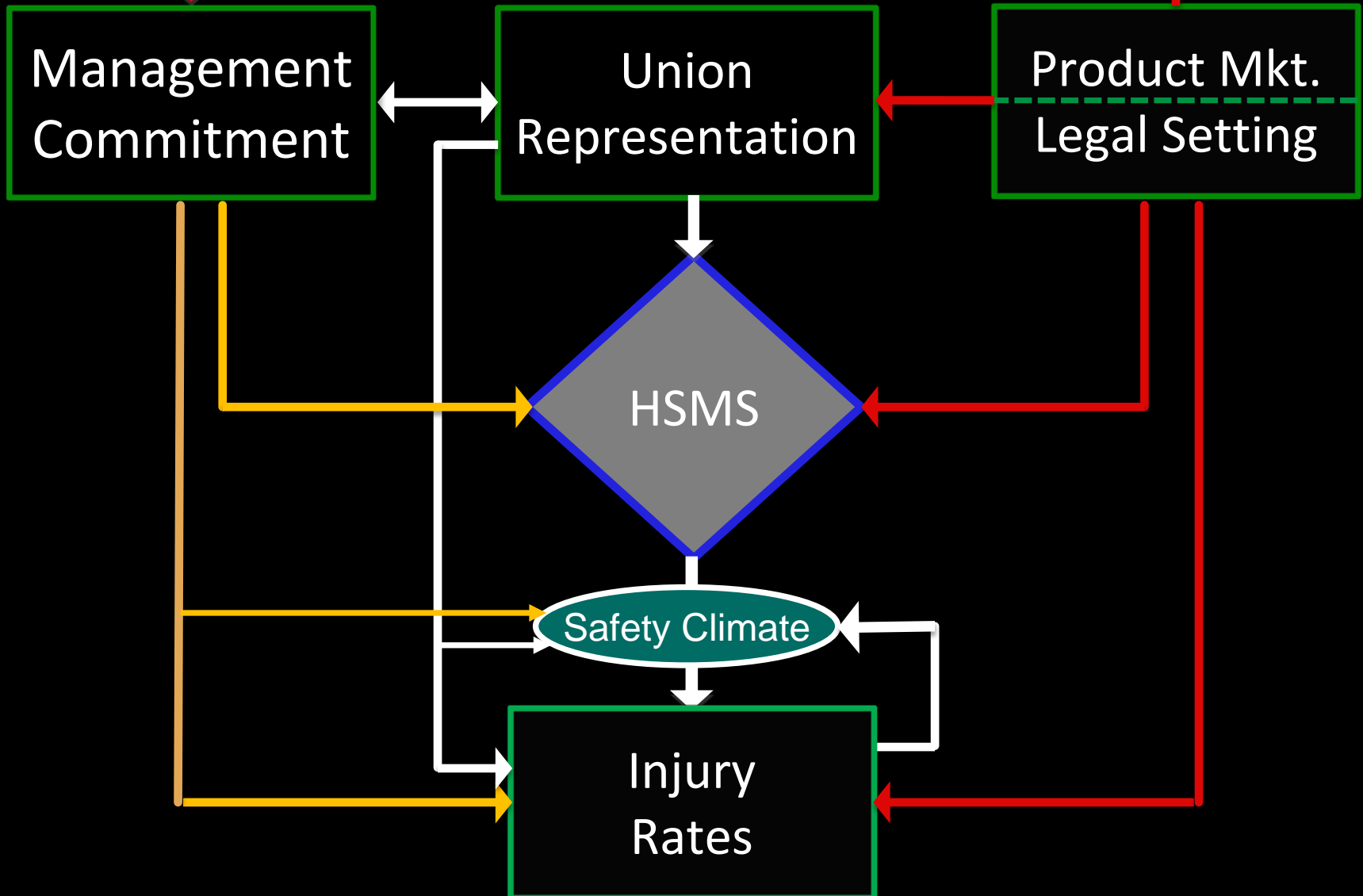
Building a More Complete Conceptual Model



Underlying Risk



Underlying Risk



What Makes it Hard to Learn About H & S Impacts?

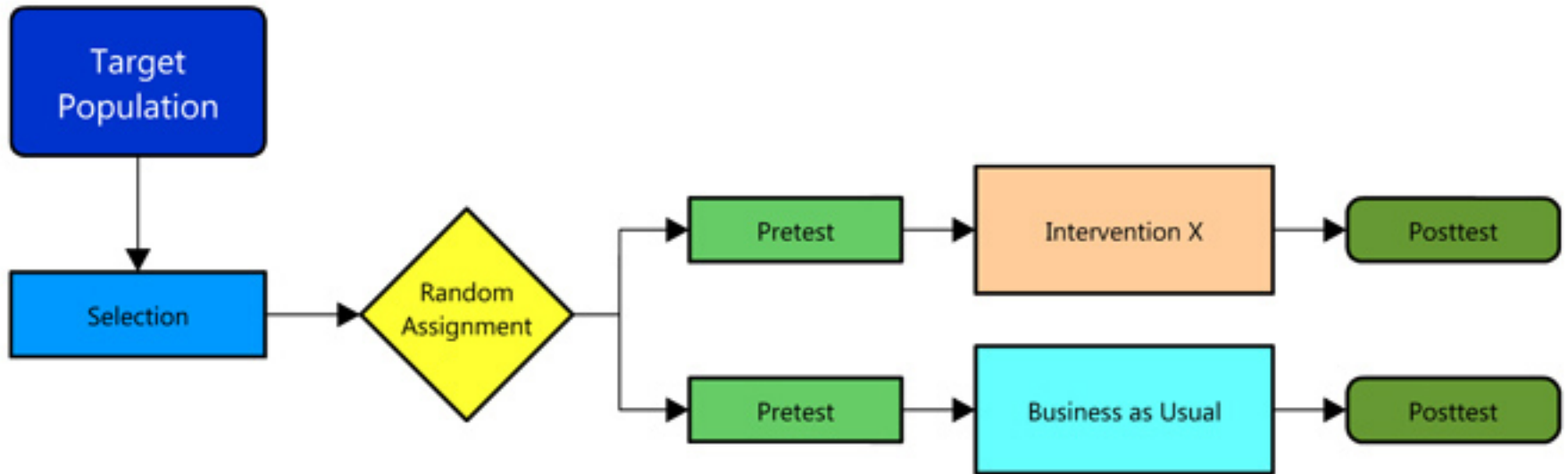
- **Voluntary vs. mandatory or incentivized**
- **Many factors, some unknown or unobserved, may be important**
- **Some likely important factors are difficult to audit – for example, management commitment**
- **Longitudinal nature of change**
- **Importance of environment**
 - **Within the firm (management style, manager ability; labor-management relations)**
 - **External to the firm (economic conditions, product market conditions)**



Feedback and Improvement

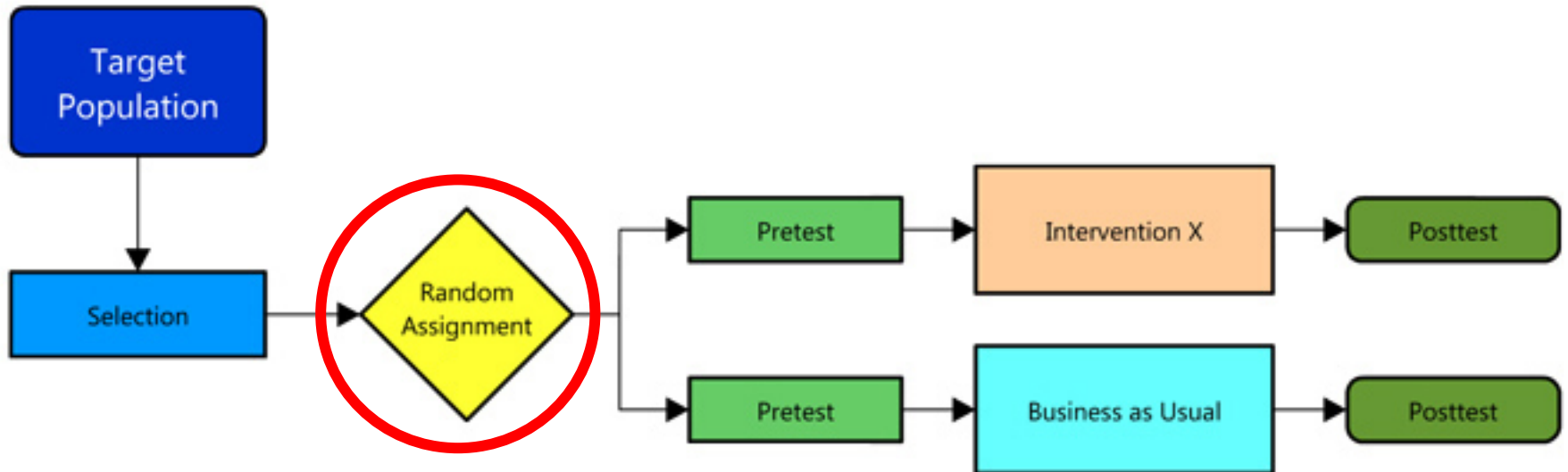
- **Acknowledge that policies may be more or less effective than predicted**
- **Build in experiments to allow for revision to improve effectiveness**

Ideal Approach: Public Policy Experiments Learning How New Policies Work



<http://www.nationaltechcenter.org>

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Concerns and other Thoughts about Experiments

- **Evaluation problem: Improved safety climate is associated with better reporting (Probst, Brubaker & Barsotti 2008; Probst & Estrada 2009)**
- **Firms may complain about differential treatment**
- **Results may take several years**
- **Is this naïve?**

